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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/690,446	10/21/2003	Jie Liang	TI-36057	3703

EXAMINER	
TSE, YOUNG TOI	

ART UNIT	PAPER NUMBER
2611	

NOTIFICATION DATE	DELIVERY MODE
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TEXAS INSTRUMENTS INCORPORATED  
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DALLAS, TX 75265

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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# Office Action Summary

Application No.

10/690,446

Applicant(s)

LIANG, JIE

Examiner

YOUNG T. TSE

Art Unit

2611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 07 September 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-3, 5-7, 9-11, 13-15 and 17-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 7, 9-11, 15 and 17-21 is/are rejected.
- 7) ☒ Claim(s) 5, 6, 13 and 14 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114 was filed in this application after appeal to the Board of Patent Appeals and Interferences, but prior to a decision on the appeal. Since this application is eligible for continued examination under 37 CFR 1.114 and the fee set forth in 37 CFR 1.17(e) has been timely paid, the appeal has been withdrawn pursuant to 37 CFR 1.114 and prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on September 7, 2007 has been entered.

### ***Response to Arguments***

2. Applicant's arguments, see pages 7 and 8, filed on September 7, 2007, with respect to the rejection(s) of claim(s) 1-3,5-7,9-11, 13-15 and 17-21 under 35 U.S.C. 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Bahl et al.

***Claim Objections***

3. Claims 1-3, 5-7, 9-11, 13-15 and 17-21 are objected to because of the following informalities:

In claim 1, line 4, "packet detection logic" and "the receiver" should be "a packet detection logic" and "a receiver", respectively; line 5, "switching logic" should be "a switching logic"; and line 6, "or second receiver path" should be "or the second receiver path".

In line 1 of claims 2-3, 5-7, 9, 11, 13-15 and 17, "receiver" should be "wireless receiver".

In claim 2, line 1, "wherein second" should be "wherein the second" and "said first" should be "the first" for consistency all over the claims.

In claim 9, line 2, "a data packet" should be "the data packet".

In claim 10, line 3, "payload" should be "a data packet payload"; line 4, "packet detection logic" and "the receiver" should be "a packet detection logic" and "a receiver", respectively; line 6, "switching logic" should be "a switching logic"; line 7, "or second" should be "or the second"; line 8, insert a comma ",", after the word "receiver"; line 9, "said first" should be "the first"; and line 10, "the payload" should be "the data packet payload".

In claim 17, line 2, "a data packet" should be "the data packet".

In claim 18, line 7, "received data packet" should be "the received data packet".

In claim 20, line 1, "wherein first" and "than second" should be "wherein the first" and "than the second", respectively.

In claim 21, line 6, "said first" should be "the first" and line 7, "the means" and "than second" should be "the first means" and "than the second", respectively.

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 17 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 17 depends upon claim 16 is not understood since claim 16 has been cancelled.

6. Regarding claim 21, the word "means" is preceded by the word(s) "decodes" in an attempt to use a "means" clause to recite a claim element as a means for performing a specified function. However, since no function is specified by the word(s) preceding "means," it is impossible to determine the equivalents of the element, as required by 35 U.S.C. 112, sixth paragraph. See *Ex parte Klumb*, 159 USPQ 694 (Bd. App. 1967).

***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the

Art Unit: 2611

applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1-3, 7, 9-11, 15 and 17-21 are rejected under 35 U.S.C. 102(e) as being anticipated by Bahl et al. (U.S. Publication No. 2004/0266493 A1, hereinafter "Bahl").

Bahl discloses a communication system 100 in Figure 1 comprising a dual radio communication system 150 which wirelessly communicate with a wireless access point 182 and also communicate with a processor or other means 110 through a wireless network interface 152 within the dual radio communication system 150. The dual radio communication system 150 comprises a multiplexer or selector 154 for selecting one of a low-power radio (LPR) 160 or a high-power radio (HPR) 170. See paragraphs [0026] to [0053].

Figure 2 illustrates the methodological steps and conditions that the DR Service uses to determine whether to instruct the DR Driver to switch from the LPR to the HPR for transmission of data packets.

Figure 3 illustrates the methodological steps and conditions that the DR Service uses to determine whether to instruct the DR Driver to switch an on-going transmission from the HPR to the LPR for transmission of data packets.

Regarding claims 1, 10, 18 and 21, the wireless communication system 100 comprises a first receiver path or front end (160) for decoding a preamble to a wireless data packet and a second receiver path or front end (170) for decoding a data packet payload, a packet detection logic within either the LPR 160 or the HPR 170 to identify data packets directed to a receiver within the processor 110; and a switching logic (154)

Art Unit: 2611

coupled to the packet detection logic to select the first receiver path (or the first front end) or the second receiver path (or the second front end) depending on whether the packet detection logic has identified a data packet directed to the receiver of the processor, wherein the first receiver path (160) has a lower decoding resolution (low-power or rate 160) than the second receiver path (high-power or rate 170).

Regarding claim 2, wherein the second receiver path is separate from the first receiver path.

Regarding claims 3, 11 and 20, wherein the first receiver path or front end requires less power to operate than the second receiver path or front end.

Regarding claims 7 and 15, although Bahl does not explicitly teach the first receiver path uses a specific barker-code detection to decode the preamble of the data packet; it is well known to a person skill in the to know any kind of coding detection could be used to decode the preamble of the data packer, including the barker-code detection since a barker code is one of many coding techniques.

Regarding claims 9 and 17, wherein the multiplexer 154 selects the first LPR path until a data packet is identified and then selects the HPR path to decode the data packet payload.

Regarding claim 19, the multiplexer 154 switches back to the LPR path when receiving of the data packet payload is completed.

***Allowable Subject Matter***

9. Claims 5-6 and 13-14 would be allowable if rewritten to overcome the objection(s) set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

***Conclusion***

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Liang et al. relates to a low power packet detector which can significantly reduce the average power consumption of WLAN devices.

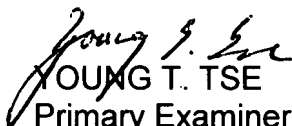
Any inquiry concerning this communication or earlier communications from the examiner should be directed to YOUNG T. TSE whose telephone number is (571) 272-3051. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad H. Ghayour can be reached on (571) 272-3021. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Art Unit: 2611

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
YOUNG T. TSE  
Primary Examiner  
Art Unit 2611